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JUL - 1 1968

AP(AA)-RQA

TOI

NASA Headquarters

Attention: Apollo Applications Program Director, ML

FROM:

Apollo Applications Manager, AA

SUBJECT: Apollo Ap

Apollo Applications Program Directive No. 9, Reliability,

Quality, and System Safety Auditing

1. KSC has assessed the subject directive for implementation. By Enclosure I you will see that, in accordance with Kennedy Management Instruction 5310.1A, I have delegated the reliability and quality auditing requirements to the appropriate KSC organizations. As you know, the system safety function and responsibility at KSC is still undergoing definition, and therefore the associated auditing responsibilities have not been delegated at this time.

2. This area will be re-examined periodically to assure that any AAP KSC contractors are audited against the requirements of the directive and their contractual requirements.

ORIGINAL SIGNED BY THOMAS W. MORGAN

Thomas W. Morgan Colonel, USAF

Enclosures: (1) AA memo to IS, LO, TS, DE and QA,
July 1, 1968, subject as above

(2) KMI 5310.1A

icc: (w/o enc)

Mr. Murphy, EX

Mr. Atkins, SF

Mr. Wootton, AP-SYS

Mr. Gramer, IS-QAL

Adm. Middleton, AP

Mr. Petrone, LO

Mr. Miller, IS

Mr. Preston, DE

Mr. Clark, TS .

Mr. McDaris, QA

JLJogner: mh June 21

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UNITED STATES GOVERNMENT

# Memorandum

: Distribution

DATE: JUL - 1 1968

: Apollo Applications Program Manager, AA

T: Apollo Applications Program Directive No. 9, Reliability, Quality, and System Safety Auditing

- 1. In accordance with the referenced KMI, the Apollo Applications Program Manager delegates the responsibility for conducting audits of Apollo Applications Program reliability and quality activities required by the subject directive (copy enclosed) as delineated below.
- 2. The following requirements of AAPD #9 are stated and identified as they pertain to the respective organizations:

## Requirement

## Organization Responsible

- a. Center audits of KSC line organizations, on-site delegated Government Inspection Agencies, and on-site KSC contractors
- Director, Quality Assurance
- b. Center audits of off-site hardware contractors and Government agencies

Director of Installation Support (through the Quality Surveillance Division)

c. Apollo contractor/subcontractor audits of in-house contractor R&QA activities and those of subcontractors and suppliers

Directors of Installation Suppor Launch Operations, Technical Support and Design Engineering when NPC 200-2 and NPC 250-1 provisions are invoked upon contractors/subcontractors under their cognizance

- 3. The Apollo Applications Program Office may participate in any audits conducted and will require copies of any audit reports written on AAP R&QA activities.
- 4. The system safety portion of the subect directive is currently undergoing further definition. However, it is presently anticipated that a similar delegation will be given to the Safety Office for this area.

Thomas W. Margan Colonel, USAF

Enclosure: AAPD #9

Distribution:

Director of Installation Support, IS Director of Launch Operations, LO Director of Technical Support, TS Director of Design Engineering, DE Director, Quality Assurance, QA

cc:

Adm. Middleton, AP Mr. Atkins, SF

DATE

January 22, 1968

APOLIO APPLICATIONS
PROGRAM DIRECTIVE NO. 9

M

TO

: Distribution

FROM:

Charles W. Mithens DIRECTOR, APOLLO APPLICATIONS

SUBJECT: Reliability, Quality, and System Safety Auditing

REF.

- (a) Apollo Applications Reliability and Quality Assurance Program Plan, NHB 5300.5, May 1967 Edition, Paragraph 2.14
- (b) NPC 200-2, Quality Program Provisions for Space System Contractors, April 1962 Edition, Section 15
  - (c) NPC 250-1, Reliability Program Provisions for Space System Contractors, July 1963 Edition, Paragraph 2.3
  - (d) NPD 5330.8, MSF Quality Assurance Audit and Discrepancy Reporting, 13 October 1967
  - (e) Apollo and Apollo Applications Safety Program Plan, (Draft) Paragraph 3.10.3

# I. PURPOSE

The purpose of this Directive is to specifically identify responsibilities for planning, conducting, and reporting on audits of reliability, quality, and system safety (ROMSS) program activities at all Apollo Applications Program organizational/levels.

#### II. SCOPE

This Directive is applicable to audits conducted of all AAP RQ&SS Offices, appropriate Government Inspection Agencies, AAP Contractors, Subcontractors and Suppliers. The RQ&SS Program activities for all AAP flight and ground systems and equipment will be audited.

#### III. RESPONSIBILITIES

All NASA AAP RQ&SS Offices shall be responsible for the implementation of requirements established by this Directive.

3200.081 (Project)

January 22, 1968

#### IV. ACTION REQUIRED

#### A. Audits

The following organizations will audit the lower level organizations as indicated:

- 1. The Apollo Applications Program Office will audit all MSF Center AAP RQ&SS Offices.
- 2. Center AAP RQ&SS Offices will audit line organizations assigned AAP RQ&SS responsibility, or delegate such audit requirements to an appropriate Center organization. They will similarly audit Government Inspection Agencies assigned to AAP Contractors', Subcontractors', and Suppliers' facilities.
- 3. Center AAP RQ&SS Offices will audit (or delegate authority to Government Inspection Agencies to audit) AAP RQ&SS activities at Contractor, Subcontractor, and Supplier plants.
- 4. Center AAP RQ&SS Offices shall require AAP Contractors/ Subcontractors to audit in-house RQ&SS activities and those of Subcontractors and Suppliers.
- 5. In order to minimize the need for duplicate audits and provide for an exchange of experience, audit team membership should include a combination of selected representatives from Engineering, and Manufacturing, as well as the audit agency's RQ&SS organizations. Membership should be on the basis of recognized responsibility and authority compatible with the level of the audit.

## B. Audit Procedures

Audit procedures should be implemented in such a way that technical hardware problems can be related to deficiencies in engineering, manufacturing, quality assurance or safety functions. General guidelines for audit procedures are contained in References (a), (b), and (c).

In those instances where a delegated agency is performing an audit for one or more other organization, the audit agency shall coordinate and obtain approval for procedures.

M-D ML 3200.081

DATE

January 22, 1968

## C. Reports

Reports of audit findings shall be prepared immediately following each audit. The reports shall be reviewed and evaluated by the auditing agency and the agency that requested the audit, with contact as necessary with the audited organization to ascertain report accuracy. Distribution of reports should be made to all organizations having responsibility for implementation recommendations. Reports shall be made available on request of higher level organizations. The Apollo Applications Program RQ&SS Office (Code MLR) shall be notified of all audits performed.

#### D. Schedules

In order to avoid duplication of audits, the Apollo Applications Program RQ&SS Office shall develop scheduling and coordination procedures in conjunction with Center Program Offices. Schedules shall be published periodically as required to keep Centers informed of audit plans. Schedules should provide for an audit of each activity at least once each year and not more frequently than once every six months. This does not preclude conduct of special reviews at any time to investigate specific problem areas.

## IV. IMPLEMENTATION

The requirements of this Directive are effective immediately and the implementation shall be periodically reviewed for compliance by the Apollo Applications RC&SS Office.